

### **REMARKS**

Applicants hereby traverse the current rejections, and request reconsideration and withdrawal in light of the amendments and remarks contained herein. Claims 1-25 are pending in this application.

#### **Rejection Under 35 U.S.C § 101**

Claims 1-5 and 17-25 are rejected as being directed to non-statutory subject matter.

In response, Applicants have amended independent claim to more clearly recite elements consistent with 35 U.S.C. § 101. Claim 1 has been amended only for the purpose of complying with the requirements of statutory subject matter under 35 U.S.C. § 101 and not for the purpose of narrowing its scope in the face of prior art. Dependent claims 2 and 3 have also been amended to reflect these changes. No new matter has been added by these amendments as adequate support for the limitations exists through out the specification.

Claim 1, as now amended, recites a data structure that includes a functional data structure that is on a computer readable medium. Specifically, the data structure of claim 1 includes a sorted portion that is searchable with  $O(\log N)$  performance while an entry is added to the unsorted portion. According to the M.P.E.P., such a claim is patentable subject matter, see M.P.E.P. § 2106 (1). Claim 17 is a computer program product claim, which is patentable subject matter, see M.P.E.P. § 2106 (1). Applicants note that the Office Action's recitation of the Arrhythmia case is misapplied. Applicants note that the recited section of Arrhythmia pertains to a computer process claim. Claims 1 and 17 are not process claims. Also, the specification's broad definition of a computer medium, including wireless transmission, does not render claim 1 nonstatutory. Applicants note that wireless transmission is a tangible medium, and the signals traveling therein are man-made, and thus patentable subject matter. Therefore, Applicant submits that claims 1 and 17 and their dependent claims 2-5 and 18-20 are directed to statutory subject matter under 35 U.S.C. § 101.

With regards to claim 21, Applicants have amended independent claim 21 to more clearly recite elements consistent with 35 U.S.C. § 101. Claim 21 has been amended only for the purpose of complying with the requirements of statutory subject matter under 35 U.S.C. § 101 and not for the purpose of narrowing their scope in the face of prior art. No new matter has been added by this amendment. Claim 21, as now amended, recites a computer system that includes memory means for storing said data objects. Thus, claim 21 now recites a physical structure in conjunction with functional elements, and is patentable subject matter, see M.P.E.P. § 2106 (1). Therefore, Applicant submits that claim 21 and its dependent claims 22-25 are directed to statutory subject matter under 35 U.S.C. § 101.

#### **Rejection Under 35 U.S.C. § 103**

Claims 1-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Steinman (US '538) in view of Watkins (US '207).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Without conceding the second criteria, Applicants assert that the rejection does not satisfy the first and third criteria.

#### **Lack of Motivation**

The Office Action admits that Steinman does not teach having the data structure searched while an entry is added. The Office Action attempts to cure this deficiency by introducing Watkins, which the Office Action alleges to teach having such elements. The motivation for making the combination was presented as follows:

“It would have obvious ... to utilize the concept of concurrent addition of entries and searching with the data structure of

Steinman. One would have been motivated to do so in order to quickly and efficiently store large quantities of entries in a data structure.”

It is well settled that the fact that references can be combined or modified is not sufficient to establish a prima facie case of obviousness, M.P.E.P. § 2143.01. Steinman already has the capability to quickly and efficiently store large quantities of entries in its data structure. Steinman teaches robust, fast, and reliable list management, see the Abstract. Thus, the data structure of Steinman not benefit from the teaching of Watkins. Consequently, the recited motivation is merely a statement that the reference can be modified, and does not state any desirability for making the modification. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990), as cited in M.P.E.P. § 2143.01. Thus, the motivation provided by the Examiner is improper, as the motivation must establish the desirability for making the modification.

No valid suggestion has been made as to why a combination of Steinman and Watkins is desirable. Therefore, the rejection of claims 1-25 should be withdrawn.

#### Lack of Limitations

The Office Action admits that Steinman does not teach having the data structure searched while an entry is added. The Office Action attempts to cure this deficiency by introducing Watkins, which the Office Action alleges to teach having such elements. However, this combination, as presented, does not teach or suggest all limitations of the claimed invention.

Independent claims 1, 6, 17, and 21 each recite searching with  $O(\log N)$  performance. The combination of Steinman and Watkins does not disclose at least this limitation. Watkins is not relied upon as teaching this limitation. Steinman does not teach this limitation. Steinman, at column 9, lines 31-36 discloses that sorting may be done with  $O(\log_2(m))$  time, and does not discuss searching. Thus, the combination of Steinman and Watkins does not teach all of the

claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claims 1, 17 and 21 are patentable over the 35 U.S.C. § 103(a) rejection of record.

Independent claim 1 recites a data structure that is stored on a computer-readable medium wherein the sorted portion of the data structure is searchable with  $O(\log N)$  performance while an entry is added to the unsorted portion. Claim 6 defines a method that includes searching the sorted portion of the container for the requested value with  $O(\log N)$  performance, and adding an entry to the unsorted portion during the searching. The combination of Steinman and Watkins does not disclose at least these limitations. Steinman is not relied upon as teaching this limitation. Watkins does not teach this limitation. Watkins, at column 19, lines 45-58 discloses that a response entered by a user of the setup and launch procedure is performed by the DVD player, and does not discuss having a data structure that is searchable with  $O(\log N)$  performance while an entry is added to the unsorted portion (according to claim 1), nor adding an entry to the unsorted portion during the searching (according to claim 6). Thus, the combination of Steinman and Watkins does not teach all of the claimed limitations. Therefore, the Applicants respectfully assert that for the above reasons claims 1 and 6 are patentable over the 35 U.S.C. § 103(a) rejection of record.

Claims 2-5, 7-16, 18-20, and 22-25 depend from base claims 1, 6, 17, and 21, respectively, and thus inherit all limitations of their respective base claim. Each of claims 2-5, 7-16, 18-20, and 22-25 sets forth features and limitations not recited by the combination of Steinman and Watkins. Thus, the Applicants respectfully assert that for the above reasons claims 2-5, 7-16, 18-20, and 22-25 are patentable over the 35 U.S.C. § 103(a) rejection of record.

### **Conclusion**

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicants respectfully request that the Examiner call the below listed attorney if the Examiner believes that such a discussion would be helpful in resolving any remaining problems

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-2025, under Order No. 100203738-1 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being electronically filed with MS Amendments, Commissioner for Patents, through EFS web filing.

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Respectfully submitted,

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